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Rural Nebraskans' Support for Alternative Energy Sources: 2005 Nebraska Rural Poll Results

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CENTER FOR APPLIED RURAL INNOVATION

A Research Report*

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*These reports have been peer reviewed by colleagues at the University of Nebraska. Any questions, suggestions, or concerns should be sent directly to the author(s).

All of the Center's research reports detailing Nebraska Rural Poll results are located on the Center's World Wide Web page at http://cari.unl.edu/ruralpoll/

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Executive Summary

Alternative and renewable energy sources have been given increasing attention during the past few years. Many wind energy projects and ethanol plants have been started across the state. How do rural Nebraskans view alternative energy sources? Do they view them as beneficial to the state's economy? Do they think more electricity should be generated from alternative energy sources? How often do they use ethanol blend fuel?

This report details 2,851 responses to the 2005 Nebraska Rural Poll, the tenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about alternative energy sources. For all questions, comparisons are made among different respondent subgroups, that is, comparisons by age, occupation, region, etc. Based on these analyses, some key findings emerged:

- ***Most rural Nebraskans agree that the government should encourage the use of renewable energy sources.*** Eighty-nine percent agree or strongly agree with this statement. Only two percent disagree or strongly disagree.

- ***Most rural Nebraskans believe alternative energy sources are good for the state's economy.*** Eighty-nine percent either strongly agree or agree that generating more electricity through wind power would be good for Nebraska's economy. Similar proportions believe that producing more ethanol blend fuel (86%) and more soy bio-diesel blend fuel (83%) would be beneficial to the state's economy.

- ***Opinions are mixed on both the cost and reliability of alternative energy sources.*** One-third (33%) agree or strongly agree that alternative energy sources are more expensive than traditional fossil fuel energy sources (i.e., coal, gas and oil). Twenty-eight percent disagree with this statement and 39 percent have no opinion. When given the statement that traditional fossil fuel energy sources are more reliable than alternative energy sources, 33 percent disagree and 23 percent agree. Forty-four percent of rural Nebraskans have no opinion in this area.

- ***Most rural Nebraskans agree or strongly agree that alternative energy sources are better for the environment than traditional fossil fuel energy sources.*** Sixty-five percent of rural Nebraskans agree with this statement and only four percent disagree. Thirty-one percent have no opinion.

- ***Most rural Nebraskans think at least 10% of the state's electricity should be generated from alternative energy sources.*** Seventy-two percent of rural Nebraskans agree with this statement, while only three percent disagree. Twenty-five percent have no opinion.

- ***Farmers and ranchers are most likely to agree that the government should encourage the use of renewable energy sources.*** Ninety-four percent of farmers and ranchers agree with this statement, compared to 84 percent of persons with service occupations.

- ***Farmers and ranchers are most likely to agree that producing more soy bio-diesel blend fuel would be good for Nebraska's economy.*** Ninety-four percent of farmers and ranchers agree with this statement, compared to 74 percent of manual laborers.

- ***Younger persons are more likely than older persons to agree that alternative energy sources are better for the environment than traditional fossil fuel energy sources.*** Seventy-six percent of persons age 19 to 29 agree with this statement, compared to 52 percent of persons age 65 and older.

- ***Over one-half of rural Nebraskans say they always or almost always use an ethanol blend fuel when filling up their vehicle.*** Twenty-seven percent say they always use this fuel and another 27 percent say they almost always use it. Only 13 percent say they never use ethanol blend fuel.

- ***Farmers and ranchers are most likely to say they always use an ethanol blend fuel.*** Forty-four percent of farmers and ranchers always use an ethanol blend fuel, compared to 21 percent of manual laborers.

- ***Persons living in the Northeast region are more likely than persons living in other regions of the state to say they always use an ethanol blend fuel when filling up their vehicle.*** Thirty-eight percent of Northeast region residents always use an ethanol blend fuel, compared to only 12 percent of the Panhandle residents. Persons living in the North Central region are the regional group most likely to say they never use this type of fuel (20%).

Introduction

Much attention has been given to alternative or renewable energy sources in the past few years. The increase in wind energy projects and ethanol plants across the state have reflected the growing interest in developing these resources. Many see the development of renewable or alternative energy sources as opportunities for rural economies. Many also say these resources are better for the environment. Given all that, how do rural Nebraskans view alternative energy sources? Do they view them as beneficial to the state's economy? Do they think more electricity should be generated from alternative energy sources? How often do they use ethanol blend fuel? This paper provides a detailed analysis of these questions.

The 2005 Nebraska Rural Poll is the tenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about alternative energy sources.

Methodology and Respondent Profile

This study is based on 2,851 responses from Nebraskans living in the 84 non-metropolitan counties in the state. A self-administered questionnaire was mailed in February and March to approximately 6,250 randomly selected households. Metropolitan counties not included in the sample were Cass, Dakota, Dixon, Douglas, Lancaster, Sarpy, Saunders, Seward and Washington. The 14-page questionnaire included questions pertaining to well-being, community, work, the past ten years, housing and alternative energy sources. This paper reports only results from the alternative energy sources portion of the survey.

A 46% response rate was achieved using the total design method (Dillman, 1978). The sequence of steps used follow:

1. A pre-notification letter was sent requesting participation in the study.
2. The questionnaire was mailed with an informal letter signed by the project director approximately seven days later.
3. A reminder postcard was sent to the entire sample approximately seven days after the questionnaire had been sent.
4. Those who had not yet responded within approximately 14 days of the original mailing were sent a replacement questionnaire.

The average age of respondents is 56 years. Seventy-one percent are married (Appendix Table 1[1]) and sixty-eight percent live within the city limits of a town or village. On average, respondents have lived in Nebraska 47 years and have lived in their current community 31 years. Fifty-two percent are living in or near towns or villages with populations less than 5,000. Ninety-three percent have attained at least a high school diploma.

Fifty-four percent of the respondents report their 2004 approximate household income from all sources, before taxes, as below $40,000. Thirty-three percent report incomes over $50,000.

Seventy percent were employed in 2004 on a full-time, part-time, or seasonal basis.

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[1] Appendix Table 1 also includes demographic data from previous rural polls, as well as similar data based on the entire non-metropolitan population of Nebraska (using 2000 U.S. Census data).

Twenty-five percent are retired. Thirty-four percent of those employed reported working in a professional, technical or administrative occupation. Fourteen percent indicated they were farmers or ranchers. The employed respondents who do not work in their home or their nearest community reported having to drive an average of 33 miles, one way, to their primary job.

Alternative Energy Sources

Respondents were first asked their opinions about alternative energy sources. These sources were defined as including solar, wind, small hydropower or biomass. Most rural Nebraskans have favorable opinions about alternative energy sources. A vast majority (89%) strongly agree or agree that the government should encourage the use of renewable energy resources (Table 1). They also believe that these sources are good for the state's economy. Eighty-nine percent agree or strongly agree that generating more electricity through wind power would be good for Nebraska's economy. Similar proportions believe that producing more ethanol blend fuel (86%) and more soy bio-diesel blend fuel (83%) would be beneficial to the state's economy.

Opinions are mixed on both the cost of alternative energy sources and their reliability. One-third (33%) agree or strongly agree that alternative energy sources are more expensive than traditional fossil fuel energy sources (i.e., coal, gas and oil). Twenty-eight percent disagree with this statement and 39 percent have no opinion. When given the statement that traditional fossil fuel energy sources are more reliable than alternative energy sources, 33 percent disagree and 23 percent agree. Forty-four percent of the respondents have no opinion in this area.

The views about the environmental impacts of energy sources are more clear. Sixty-five percent of rural Nebraskans agree or strongly agree that alternative energy sources are better for the environment than traditional fossil fuel energy sources. Only four percent disagree with this statement and 31 percent have no opinion.

Eighty-four percent agree or strongly agree that wind power is an energy source that can be produced and used locally. When asked if at least 10% of Nebraska's electricity should be generated from alternative energy sources, 72 percent agree. Only three percent disagree with this statement and 25 percent have no opinion.

These views on alternative energy sources are examined by community size, region and various individual attributes (Appendix Table 2). Many differences emerge.

Farmers and ranchers are more likely than persons with different occupations to agree that the government should encourage the use of renewable energy resources. Ninety-four percent of farmers and ranchers agree with that statement, compared to 84 percent of persons with service occupations. Other groups most likely to agree with this statement include: persons with higher incomes, persons under the age of 64, males, married persons and persons with the highest education levels.

Only one difference is detected when asked about the impact of wind power on Nebraska's economy. Males are slightly more likely than females to agree with this statement. Females are more likely to have no opinion.

Table 1. *Opinions Regarding Alternative Energy Sources*

	Strongly Disagree	*Disagree*	*No Opinion*	*Agree*	*Strongly Agree*
The government should encourage the use of renewable energy resources.	1%	1%	10%	43%	46%
Generating more electricity through wind power would be good for Nebraska's economy.	1	2	9	42	47
Producing more ethanol blend fuel would be good for Nebraska's economy.	1	2	10	40	46
Producing more soy bio-diesel blend fuel would be good for Nebraska's economy.	1	1	15	39	44
Alternative energy sources are more expensive than traditional fossil fuel energy sources (i.e., coal, gas and oil).	5	23	39	26	7
Wind power is an energy source that can be produced and used locally.	1	2	14	47	37
At least 10% of Nebraska's electricity should be generated from alternative energy sources.	1	2	25	40	32
Traditional fossil fuel energy sources are more reliable than alternative energy sources.	6	27	44	19	4
Alternative energy sources are better for the environment than traditional fossil fuel energy sources.	1	3	31	37	28

Certain groups are more likely than others to agree that both producing more ethanol blend fuel and producing more soy bio-diesel blend fuel would be good for the state's economy: persons with higher incomes, males, married persons and persons with the highest education levels. Persons who have never married are also more likely than other marital groups to agree that producing more ethanol blend fuel would be beneficial to Nebraska's economy.

A few additional differences are detected by region and occupation when asked about the economic impact of soy bio-diesel blend

fuel. Persons living in the Panhandle (see Appendix Figure 1 for the counties included in each region) are *less* likely than persons living in other regions of the state to agree that soy bio-diesel blend fuel is beneficial to Nebraska's economy. Eighty-six percent of the residents of the Southeast region agree with this statement, compared to 76 percent of the Panhandle residents. Farmers and ranchers are the occupation group most likely to agree with this statement. Ninety-four percent of farmers and ranchers agree that producing more soy bio-diesel blend fuel would be good for Nebraska's economy; in comparison, only 74 percent of manual laborers agree with this statement.

The groups most likely to agree that alternative energy sources are more expensive than traditional fossil fuel energy sources include: persons with the highest incomes, persons over the age of 40, males, married persons, persons with the highest education levels and persons with professional occupations.

Persons living in the Panhandle are more likely than persons living in other regions of the state to agree that wind power is an energy source that can be produced and used locally. Ninety-one percent of the Panhandle residents agree with this statement, compared to 82 percent of residents of both the Northeast and Southeast regions. Other groups most likely to agree with this statement include: persons with higher incomes, males, both married and divorced/separated persons and persons with at least some college education.

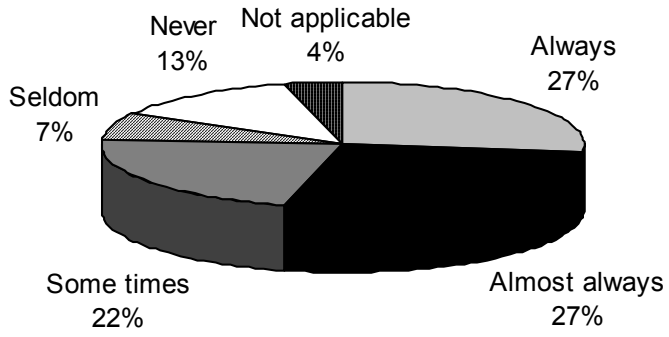
When asked if at least 10% of the state's electricity should be generated from alternative energy sources, differences in opinion occur by age, household income, gender, marital status and education. The groups most likely to agree that at least 10% of our electricity should be generated from alternative energy sources include: persons under the age of 64, persons with higher incomes, males, married persons and persons with at least a four year college degree.

Many of these same groups are also most likely to agree that traditional fossil fuel energy sources are more reliable than alternative energy sources. These groups include: persons with higher incomes, older persons, males, married persons, and persons with higher education levels. When comparing the responses by occupation, persons with service and administrative support positions are the groups *least* likely to agree with this statement.

Younger persons are more likely than older persons to agree that alternative sources are better for the environment than traditional fossil fuel energy sources. Seventy-six percent of persons age 19 to 29 agree with this statement, compared to 52 percent of persons age 65 and older. Other groups most likely to agree include: persons with higher household incomes, males, married persons, persons with higher education levels and respondents with professional occupations.

Next, to find out how rural Nebraskans are using one alternative energy source, the respondents were asked how often they use an ethanol blend fuel when filling up their vehicle. Over one-half (54%) of rural Nebraskans say they always or almost always use an ethanol blend fuel (Figure 1). Only 13 percent say they never use ethanol blend fuel when filling up their vehicle.

Figure 1. *Frequency of Use of Ethanol Fuel*



Answers to this question are analyzed by community size, region and various individual attributes (Appendix Table 3). Differences are detected by each characteristic examined.

Farmers and ranchers are more likely than persons with different occupations to say they always use an ethanol blend fuel when filling up their vehicle. Forty-four percent of farmers and ranchers always use an ethanol blend fuel, compared to 21 percent of manual laborers. Persons with administrative support occupations are the group most likely to say they never use an ethanol blend fuel (21 percent compared to only five percent of farmers and ranchers).

Persons living in the Northeast region are more likely than persons living in other regions to say they always use an ethanol blend fuel. Thirty-eight percent of the residents of the Northeast region always use an ethanol blend fuel when filling up their vehicle, compared to only 12 percent of the Panhandle residents. Persons living in the North Central region are the regional group most likely to say they never use this type of fuel (20%).

Other groups most likely to always use an ethanol blend fuel include: persons living in or near communities with populations ranging from 500 to 999, persons with higher household incomes, persons under the age of 50, males, and married persons. Persons without any college education are more likely than persons with at least some college education to say they never use an ethanol blend fuel.

Conclusion

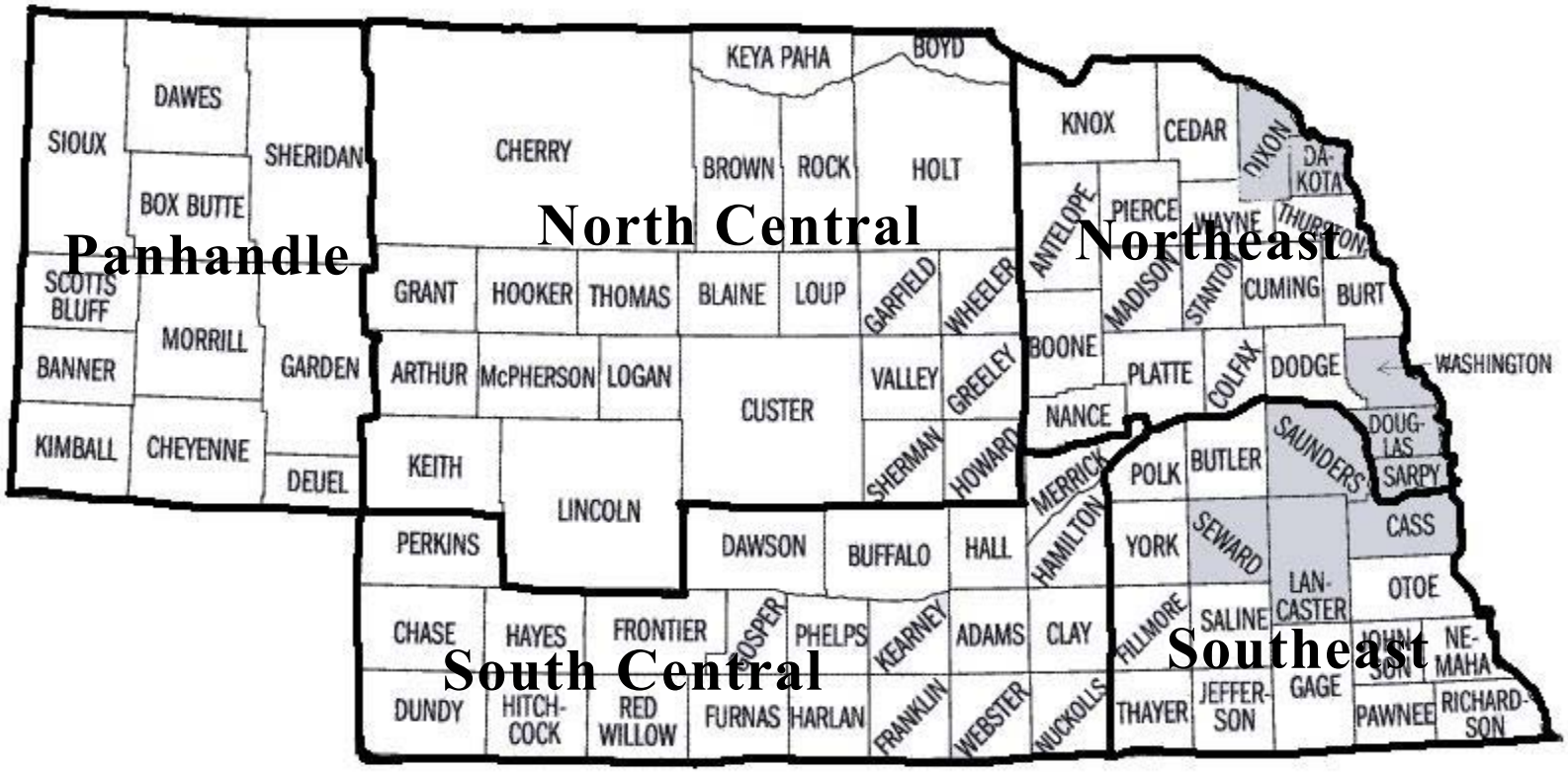
Most rural Nebraskans have favorable opinions about alternative energy sources. The majority believe the government should encourage the use of renewable energy sources. Furthermore, almost three-quarters agree that at least 10% of the state's electricity should be generated from alternative energy sources.

When asked about specific impacts of various energy sources, many believe

alternative energy sources are good for the state's economy. Most believe that using more wind power, ethanol blend fuel and soy bio-diesel blend fuel all benefit Nebraska's economy. Many also believe alternative energy sources are better for the environment than traditional fossil fuel energy sources. However, opinions are mixed on both the cost of alternative energy sources and their reliability. Many rural Nebraskans had no opinion about those statements. Perhaps more public education is needed about these topics so that residents can better form an opinion in these areas.

When asked about the use of ethanol blend fuel, over one-half of rural Nebraskans say they always or almost always use it when filling up their vehicle. Thus, many rural Nebraskans are backing up their favorable opinions of this fuel with their actions.

Appendix Figure 1. Regions of Nebraska



Metropolitan counties (not surveyed)

Appendix Table 1. *Demographic Profile of Rural Poll Respondents Compared to 2000 Census*

	2005 Poll	***2004 Poll***	***2003 Poll***	***2002 Poll***	***2001 Poll***	***2000 Poll***	***2000 Census***
Age : [1]							
20 - 39	15%	18%	18%	16%	17%	20%	33%
40 - 64	51%	49%	51%	51%	49%	54%	42%
65 and over	34%	32%	32%	32%	33%	26%	24%
Gender: [2]							
Female	32%	32%	51%	36%	37%	57%	51%
Male	69%	68%	49%	64%	63%	43%	49%
Education: [3]							
Less than 9th grade	3%	3%	2%	3%	4%	2%	7%
9th to 12th grade (no diploma)	5%	5%	5%	4%	5%	4%	10%
High school diploma (or equivalent)	33%	34%	34%	32%	35%	34%	35%
Some college, no degree	24%	24%	23%	25%	26%	28%	25%
Associate degree	13%	12%	11%	10%	8%	9%	7%
Bachelors degree	14%	15%	16%	16%	13%	15%	11%
Graduate or professional degree	10%	8%	9%	10%	8%	9%	4%
Household income: [4]							
Less than $10,000	8%	9%	8%	8%	9%	3%	10%
$10,000 - $19,999	14%	15%	14%	15%	16%	10%	16%
$20,000 - $29,999	16%	16%	16%	17%	20%	15%	17%
$30,000 - $39,999	16%	16%	16%	17%	16%	19%	15%
$40,000 - $49,999	14%	13%	13%	14%	14%	17%	12%
$50,000 - $59,999	10%	11%	11%	11%	9%	15%	10%
$60,000 - $74,999	10%	10%	11%	9%	8%	11%	9%
$75,000 or more	13%	11%	11%	10%	8%	11%	11%
Marital Status: [5]							
Married	71%	69%	73%	73%	70%	95%	61%
Never married	7%	9%	7%	6%	7%	0.2%	22%
Divorced/separated	11%	10%	9%	9%	10%	2%	9%
Widowed/widower	11%	12%	11%	12%	14%	4%	8%

[1] 2000 Census universe is non-metro population 20 years of age and over.

[2] 2000 Census universe is total non-metro population.

[3] 2000 Census universe is non-metro population 18 years of age and over.

[4] 2000 Census universe is all non-metro households.

[5] 2000 Census universe is non-metro population 15 years of age and over.

Appendix Table 2. *Opinions About Energy Sources by Community Size, Region and Individual Attributes*

	The government should encourage the use of renewable energy resources.				***Generating more electricity through wind power would be good for Nebraska's economy.***			
	Disagree	*No opinion*	*Agree*	*Chi-square (sig.)*	*Disagree*	*No opinion*	*Agree*	*Chi-square (sig.)*
				Percentages				
Community Size		(n = 2620)				(n = 2641)		
Less than 500	2	9	89		2	7	91	
500 - 999	2	9	89		2	9	89	
1,000 - 4,999	2	10	88		2	8	90	
5,000 - 9,999	1	9	90	$P^2 = 1.66$	1	13	86	$P^2 = 14.50$
10,000 and up	2	10	89	(.990)	3	9	88	(.070)
Region		(n = 2704)				(n = 2727)		
Panhandle	1	9	90		1	8	91	
North Central	2	9	88		2	7	91	
South Central	2	9	89		3	10	88	
Northeast	2	10	89	$P^2 = 3.35$	3	10	87	$P^2 = 9.15$
Southeast	1	11	88	(.910)	2	10	88	(.330)
Income Level		(n = 2523)				(n = 2541)		
Under $20,000	1	16	83		2	12	86	
$20,000 - $39,999	2	10	89		2	8	91	
$40,000 - $59,999	2	7	92	$P^2 = 45.64$	2	9	89	$P^2 = 9.28$
$60,000 and over	2	5	93	(.000)	3	9	89	(.158)
Age		(n = 2720)				(n = 2744)		
19 - 29	0	12	88		1	11	89	
30 - 39	1	10	89		1	9	90	
40 - 49	2	8	90		2	9	89	
50 - 64	2	8	91	$P^2 = 17.36$	2	9	89	$P^2 = 6.16$
65 and older	2	12	86	(.027)	3	9	88	(.629)
Gender		(n = 2693)				(n = 2716)		
Male	2	6	92	$P^2 = 82.16$	2	8	90	$P^2 = 7.64$
Female	1	17	81	(.000)	2	12	87	(.022)
Marital Status		(n = 2689)				(n = 2712)		
Married	2	7	91		2	8	90	
Never married	1	12	87		2	13	86	
Divorced/separated	2	13	85	$P^2 = 59.09$	3	10	87	$P^2 = 11.51$
Widowed	1	20	79	(.000)	3	12	85	(.074)
Education		(n = 2690)				(n = 2713)		
H.S. diploma or less	2	13	85		2	10	89	
Some college	2	9	90	$P^2 = 37.32$	2	9	88	$P^2 = 5.25$
Bachelors degree	2	5	94	(.000)	3	8	89	(.262)
Occupation		(n = 1813)				(n = 1816)		
Sales	1	10	89		1	10	90	
Manual laborer	1	13	86		1	15	84	
Prof/tech/admin	1	6	92		3	9	89	
Service	1	14	84		1	11	88	
Farming/ranching	1	5	94		1	8	91	
Skilled laborer	2	6	92	$P^2 = 38.09$	2	8	90	$P^2 = 15.41$
Admin support	1	14	85	(.001)	2	6	92	(.351)

Appendix Table 2 continued

	Producing more ethanol blend fuel would be good for Nebraska's economy.				***Producing more soy bio-diesel blend fuel would be good for Nebraska's economy.***			
	Disagree	*No opinion*	*Agree*	*Chi-square (sig.)*	*Disagree*	*No opinion*	*Agree*	*Chi-square (sig.)*
				Percentages				
Community Size		(n = 2645)				(n = 2633)		
Less than 500	4	10	86		2	12	86	
500 - 999	3	8	88		2	13	85	
1,000 - 4,999	3	9	88		2	14	84	
5,000 - 9,999	3	13	84	$P^2 = 4.86$	2	19	80	$P^2 = 9.24$
10,000 and up	3	10	87	(.772)	3	16	82	(.323)
Region		(n = 2730)				(n = 2715)		
Panhandle	5	12	83		2	22	76	
North Central	3	12	85		3	18	80	
South Central	3	9	88		2	14	84	
Northeast	3	10	87	$P^2 = 12.16$	2	14	84	$P^2 = 22.21$
Southeast	2	10	89	(.144)	2	12	86	(.005)
Income Level		(n = 2543)				(n = 2532)		
Under $20,000	4	13	83		3	20	77	
$20,000 - $39,999	3	11	87		2	15	83	
$40,000 - $59,999	2	10	88	$P^2 = 18.06$	1	13	86	$P^2 = 22.65$
$60,000 and over	3	7	90	(.006)	2	12	86	(.001)
Age		(n = 2746)				(n = 2731)		
19 - 29	3	13	84		1	14	85	
30 - 39	1	13	85		1	17	82	
40 - 49	2	10	88		1	15	84	
50 - 64	4	10	86	$P^2 = 15.24$	3	14	83	$P^2 = 13.58$
65 and older	3	10	88	(.055)	2	17	82	(.093)
Gender		(n = 2717)				(n = 2703)		
Male	3	8	88	$P^2 = 29.44$	2	11	87	$P^2 = 77.47$
Female	2	15	83	(.000)	2	24	74	(.000)
Marital Status		(n = 2713)				(n = 2699)		
Married	3	9	89		2	12	86	
Never married	2	11	87		2	19	79	
Divorced/separated	4	17	80	$P^2 = 30.75$	3	22	75	$P^2 = 50.89$
Widowed	3	16	81	(.000)	2	25	73	(.000)
Education		(n = 2715)				(n = 2701)		
H.S. diploma or less	2	11	87		2	17	81	
Some college	3	11	86	$P^2 = 12.61$	2	15	83	$P^2 = 15.68$
Bachelors degree	4	8	88	(.013)	3	11	86	(.003)
Occupation		(n = 1818)				(n = 1814)		
Sales	3	12	85		2	17	81	
Manual laborer	1	16	82		2	24	74	
Prof/tech/admin	3	10	87		2	15	83	
Service	2	12	86		1	18	81	
Farming/ranching	1	6	93		0*	6	94	
Skilled laborer	4	9	87	$P^2 = 20.68$	3	13	84	$P^2 = 39.52$
Admin support	0	9	91	(.110)	0	16	84	(.000)

0* = Less than 1 percent.

Appendix Table 2 continued

	Alternative energy sources are more expensive than traditional fossil fuel energy sources (i.e., coal, gas and oil).				***Wind power is an energy source that can be produced and used locally.***			
	Disagree	*No opinion*	*Agree*	*Chi-square (sig.)*	*Disagree*	*No opinion*	*Agree*	*Chi-square (sig.)*
				Percentages				
Community Size		(n = 2612)				(n = 2611)		
Less than 500	30	35	35		2	14	85	
500 - 999	33	36	31		3	15	83	
1,000 - 4,999	30	38	32		2	13	85	
5,000 - 9,999	26	43	32	$P^2 = 12.27$	2	16	82	$P^2 = 3.39$
10,000 and up	26	40	35	(.139)	3	14	84	(.908)
Region		(n = 2694)				(n = 2696)		
Panhandle	28	37	34		2	8	91	
North Central	31	34	35		1	13	86	
South Central	27	40	33		3	15	83	
Northeast	26	41	33	$P^2 = 6.75$	3	15	82	$P^2 = 18.53$
Southeast	29	39	33	(.564)	2	16	82	(.018)
Income Level		(n = 2521)				(n = 2512)		
Under $20,000	25	49	26		2	20	78	
$20,000 - $39,999	26	42	32		2	12	86	
$40,000 - $59,999	33	36	31	$P^2 = 72.26$	2	13	86	$P^2 = 25.20$
$60,000 and over	29	28	44	(.000)	3	11	86	(.000)
Age		(n = 2711)				(n = 2712)		
19 - 29	27	47	26		1	13	86	
30 - 39	34	41	26		2	15	83	
40 - 49	30	36	34		2	12	86	
50 - 64	30	32	38	$P^2 = 56.42$	2	12	86	$P^2 = 14.93$
65 and older	22	46	32	(.000)	3	17	80	(.061)
Gender		(n = 2684)				(n = 2683)		
Male	31	32	37	$P^2 = 104.5$	3	11	87	$P^2 = 47.74$
Female	21	53	26	(.000)	1	21	78	(.000)
Marital Status		(n = 2680)				(n = 2679)		
Married	30	35	36		2	12	86	
Never married	27	43	30		2	21	77	
Divorced/separated	28	45	28	$P^2 = 65.67$	2	13	85	$P^2 = 41.32$
Widowed	16	58	26	(.000)	2	24	74	(.000)
Education		(n = 2682)				(n = 2680)		
H.S. diploma or less	24	46	30		1	17	82	
Some college	30	38	32	$P^2 = 55.71$	2	13	85	$P^2 = 22.54$
Bachelors degree	31	29	41	(.000)	4	11	86	(.000)
Occupation		(n = 1808)				(n = 1807)		
Sales	28	37	35		1	15	84	
Manual laborer	20	46	34		2	20	78	
Prof/tech/admin	30	32	38		3	11	86	
Service	27	41	32		1	11	88	
Farming/ranching	41	28	30		1	11	87	
Skilled laborer	28	40	32	$P^2 = 40.41$	2	10	88	$P^2 = 22.33$
Admin support	25	47	28	(.000)	1	16	83	(.072)

Appendix Table 2 continued

	At least 10% of Nebraska's electricity should be generated from alternative energy sources.				***Traditional fossil fuel energy sources are more reliable than alternative energy sources.***			
	Disagree	*No opinion*	*Agree*	*Chi-square (sig.)*	*Disagree*	*No opinion*	*Agree*	*Chi-square (sig.)*
				Percentages				
Community Size		(n = 2614)				(n = 2603)		
Less than 500	3	26	71		37	46	18	
500 - 999	2	27	71		31	48	22	
1,000 - 4,999	2	23	75		36	41	23	
5,000 - 9,999	3	27	70	$P^2 = 5.24$	35	43	23	$P^2 = 13.18$
10,000 and up	3	26	71	(.732)	31	44	25	(.106)
Region		(n = 2700)				(n = 2684)		
Panhandle	2	24	75		39	42	20	
North Central	2	25	73		34	46	21	
South Central	3	28	69		34	44	22	
Northeast	4	24	73	$P^2 = 12.23$	30	44	26	$P^2 = 11.68$
Southeast	2	25	73	(.141)	32	45	23	(.166)
Income Level		(n = 2518)				(n = 2507)		
Under $20,000	1	32	67		26	56	18	
$20,000 - $39,999	3	24	73		34	45	22	
$40,000 - $59,999	2	23	75	$P^2 = 32.04$	35	42	24	$P^2 = 49.15$
$60,000 and over	5	22	74	(.000)	40	36	25	(.000)
Age		(n = 2716)				(n = 2700)		
19 - 29	1	24	75		41	43	16	
30 - 39	1	25	73		33	48	20	
40 - 49	4	24	72		37	42	21	
50 - 64	3	23	75	$P^2 = 20.15$	39	37	24	$P^2 = 66.72$
65 and older	2	30	69	(.010)	24	52	25	(.000)
Gender		(n = 2688)				(n = 2672)		
Male	3	22	75	$P^2 = 37.85$	36	37	27	$P^2 = 126.5$
Female	1	33	66	(.000)	27	60	13	(.000)
Marital Status		(n = 2684)				(n = 2669)		
Married	3	23	74		35	40	25	
Never married	3	33	65		33	50	16	
Divorced/separated	3	26	71	$P^2 = 37.10$	36	47	17	$P^2 = 77.76$
Widowed	1	38	62	(.000)	19	66	15	(.000)
Education		(n = 2684)				(n = 2670)		
H.S. diploma or less	1	28	71		27	51	22	
Some college	3	26	71	$P^2 = 24.52$	36	43	21	$P^2 = 56.46$
Bachelors degree	4	21	75	(.000)	40	34	26	(.000)
Occupation		(n = 1806)				(n = 1805)		
Sales	3	25	73		34	43	24	
Manual laborer	1	28	71		26	51	23	
Prof/tech/admin	4	24	72		39	37	24	
Service	1	26	73		40	44	17	
Farming/ranching	2	22	77		44	34	22	
Skilled laborer	2	23	74	$P^2 = 13.34$	35	45	20	$P^2 = 28.50$
Admin support	2	25	73	(.500)	36	46	18	(.012)

Appendix Table 2 continued

	Alternative energy sources are better for the environment than traditional fossil fuel energy sources.			
	Disagree	*No opinion*	*Agree*	*Chi-square (sig.)*
		Percentages		
Community Size		(n = 2613)		
Less than 500	5	31	64	
500 - 999	4	32	64	
1,000 - 4,999	3	29	69	
5,000 - 9,999	5	35	60	$P^2 = 11.08$
10,000 and up	4	30	66	(.197)
Region		(n = 2695)		
Panhandle	4	31	65	
North Central	4	32	64	
South Central	3	31	66	
Northeast	4	30	66	$P^2 = 2.74$
Southeast	5	33	63	(.949)
Income Level		(n = 2514)		
Under $20,000	3	43	54	
$20,000 - $39,999	4	30	66	
$40,000 - $59,999	3	33	64	$P^2 = 73.12$
$60,000 and over	4	20	76	(.000)
Age		(n = 2711)		
19 - 29	1	23	76	
30 - 39	3	31	66	
40 - 49	5	29	67	
50 - 64	5	27	68	$P^2 = 41.74$
65 and older	3	39	52	(.000)
Gender		(n = 2683)		
Male	4	26	70	$P^2 = 78.97$
Female	3	43	54	(.000)
Marital Status		(n = 2680)		
Married	4	28	68	
Never married	4	34	63	
Divorced/separated	5	35	60	$P^2 = 59.41$
Widowed	2	50	48	(.000)
Education		(n = 2682)		
H.S. diploma or less	3	39	59	
Some college	5	32	64	$P^2 = 76.31$
Bachelors degree	4	19	77	(.000)
Occupation		(n = 1810)		
Sales	1	31	68	
Manual laborer	1	46	53	
Prof/tech/admin	5	23	73	
Service	3	29	68	
Farming/ranching	4	24	72	
Skilled laborer	4	29	67	$P^2 = 46.91$
Admin support	3	34	63	(.000)

Appendix Table 3. *Use of Ethanol Blend Fuel by Region, Community Size and Individual Attributes*

	How often do you use an ethanol blend fuel when filling up your vehicle?					
	Always	*Almost always*	*Some times*	*Seldom*	*Never*	*Chi-square (sig.)*
			Percentages			
Community Size			(n = 2547)			
Less than 500	29	29	23	8	11	
500 - 999	33	31	18	7	12	
1,000 - 4,999	30	27	22	7	14	
5,000 - 9,999	21	32	28	8	12	$P^2 = 31.18$
10,000 and up	28	25	24	6	16	(.013)
Region			(n = 2631)			
Panhandle	12	30	35	9	14	
North Central	18	22	29	11	20	
South Central	31	28	21	7	13	
Northeast	38	27	19	4	12	$P^2 = 144.8$
Southeast	31	32	20	6	11	(.000)
Income Level			(n = 2438)			
Under $20,000	24	23	25	8	21	
$20,000 - $39,999	27	30	23	6	13	
$40,000 - $59,999	29	29	23	8	10	$P^2 = 49.61$
$60,000 and over	32	30	22	6	9	(.000)
Age			(n = 2648)			
19 - 29	34	27	22	8	9	
30 - 39	31	32	24	6	8	
40 - 49	32	29	22	8	10	
50 - 64	25	32	24	7	12	$P^2 = 81.16$
65 and older	27	21	24	6	21	(.000)
Gender			(n = 2619)			
Male	31	30	23	7	9	$P^2 = 114.0$
Female	22	23	24	6	24	(.000)
Marital Status			(n = 2614)			
Married	31	29	23	7	10	
Never married	27	28	19	7	19	
Divorced/separated	23	27	26	8	16	$P^2 = 127.1$
Widowed	18	17	24	8	33	(.000)
Education			(n = 2618)			
H.S. diploma or less	28	25	24	6	18	
Some college	28	30	23	8	12	$P^2 = 26.36$
Bachelors degree	30	29	23	6	11	(.001)
Occupation			(n = 1765)			
Sales	28	23	23	8	17	
Manual laborer	21	31	27	9	12	
Prof/tech/admin	28	32	22	7	11	
Service	26	29	25	7	12	
Farming/ranching	44	35	12	4	5	
Skilled laborer	29	29	23	8	11	$P^2 = 72.68$
Admin. support	23	24	24	8	21	(.000)

Note: Those answering "not applicable" were excluded from this analysis.

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